

What is claimed is:

1. An IP router device, which has a function for terminating a TCP connection and for connecting a plurality of different IP networks, comprising:

a first converting unit rewriting part of IP address information and port number information within a plurality of IP packets when the plurality of IP packets to be relayed, which form a TCP connection, pass through the router device;

a unit extracting information indicating an original connection destination of the TCP connection, generating a TCP connection from the router to the connection destination, and linking the two TCP connections with streams; and

a second converting unit rewriting part of IP address information and port number information within a plurality of IP packets forming a TCP connection for the TCP connection to the original connection destination, wherein

said first and said second converting units handle the two TCP connections as a pair, store information needed for rewriting, which is related with a identification number, in a database by assigning a unique identification number to the pair, and manages

the two TCP connections with the unique identification number stored in the database.

2. The IP router device according to claim 1,  
5 wherein

said first and said second converting units generate, delete, or update information of IP address or TCP port number stored in the database upon receipt of TCP connection termination notification from a TCP  
10 stack.

3. The router device according to claim 1,  
wherein

said first and said second converting units route  
15 an IP packet other than a TCP packet to a predetermined network without rewriting information within the IP packet.

4. The IP router device according to claim 1,  
20 wherein

said first and said second converting units route an IP packet of a new TCP connection, which exceeds a predetermined number of connections, to a predetermined network without rewriting information within the IP  
25 packet.

5. The IP router device according to claim 1,  
wherein

said first and said second converting units  
5 rewrite IP address information and port number  
information of an ICMP packet, and part of TCP/IP header  
information included in TCP/IP header information  
included in packet data for the ICMP packet having a  
predetermined type as header information within the  
10 packet.

6. A storage medium on which is recorded a  
program for causing an information processing device  
to execute a process for terminating a TCP connection  
15 and for linking a plurality of different IP networks,  
the process comprising:

rewriting part of IP address information and port  
number information within a plurality of IP packets when  
the plurality of IP packets to be relayed, which form  
20 a TCP connection, pass through a router device;

extracting information indicating an original  
connection destination of the TCP connection,  
generating a TCP connection from the router to the  
connection destination, and linking the two TCP  
25 connections with streams; and

rewriting part of IP address information and port number information within a plurality of IP packets forming a TCP connection for the TCP connection to the original connection destination; and

- 5        handling the two TCP connections as a pair, storing information needed for rewriting, which is related with a identification number, in a database by assigning a unique identification number to the pair, and managing the two TCP connections with the unique
- 10      identification number stored in the database.